CLAIM AMENDMENTS

Please cancel claims 1-5, and 22-23 without prejudice. Please amend claims 6-10, 12, 13, 15, and 24. Listed below are the claims as originally filed and their current status.

IN THE CLAIMS:

Claims 1-5 (Cancelled).

6. (Currently Amended) An electrical semiconductor device comprising:

~~an epitaxial layer of relatively~~ a high resistivity layer ~~material~~ of one conductivity type and having opposing first and second surfaces;

a layer ~~substrate~~ of relatively low resistivity material of a conductivity type opposite to the one conductivity type and having a surface substantially contiguous to the first surface of the ~~epitaxial~~ high resistivity layer; and

a dopant region of relatively low resistivity material of the one conductivity type having a surface substantially contiguous to the second surface of the ~~epitaxial~~ high resistivity layer.

wherein the second surface has a well that reduces the thickness in a portion of the high resistivity layer, thus reducing an electric field in said portion of the semiconductor device.

7. (Currently Amended) The device of claim 6 wherein the second surface is etched, and the dopant region is diffused into the second surface of the ~~epitaxial~~ high resistivity layer.

8. (Currently Amended) The device of claim 6 wherein the second surface well is etched, and the dopant region is epitaxially grown onto the second surface of the ~~epitaxial~~ high resistivity layer.

9. (Currently Amended) The device of claim 6 wherein a silicon oxide mask is applied to the first surface of the ~~substrate~~ layer of relatively low resistivity and the dopant region~~layer~~ is diffused through the silicon oxide mask and into the second surface of the ~~substrate~~ layer of relatively low resistivity.

10. (Currently Amended) The device of claim 6 wherein the ~~epitaxial~~ high resistivity layer ~~region~~ includes a stress-relieving dopant.

11. (Original) The device of claim 10 wherein the stress-relieving dopant is germanium.

12. (Currently Amended) An electrical semiconductor device comprising:

~~an epitaxial layer of relatively~~ a high resistivity layer ~~material~~ of one conductivity type and having opposing first and second surfaces, the ~~epitaxial~~ high resistivity layer further having a dopant material permeated throughout the layer;

a layer ~~substrate~~ of relatively low resistivity material of a conductivity type opposite to the one conductivity type and having a surface substantially contiguous to the first surface of the ~~epitaxial~~ high resistivity layer; and

a region of relatively low resistivity material of the one conductivity type having a surface substantially contiguous to the second surface of the ~~epitaxial~~ high resistivity layer;

wherein the second surface of the high resistivity layer has a well that reduces the thickness in a portion of the high resistivity layer, thus reducing an electric field in said portion of the electrical semiconductor device.

13. (Currently Amended) The device of claim 12 wherein the ~~dopant is~~ region contains a stress-relieving dopant.

14. (Original) The device of claim 13 wherein the stress-relieving dopant is germanium.

15. (Currently Amended) The device of claim 12 wherein a silicon oxide mask is applied to the second surface of the ~~epitaxial~~ high resistivity layer and the region is diffused through the silicon oxide mask and into the second surface of the ~~epitaxial~~ high resistivity layer.

Claims 16-20 (Withdrawn).

21. (Original) An electrical semiconductor device comprising:

a first layer of relatively high resistivity material of one conductivity type having opposing first and second surfaces;

a second layer of relatively low resistivity material of a conductivity type opposite to the one conductivity type and having one surface substantially contiguous to the first surface of the substrate;

a region of relatively low resistivity material of the one conductivity type and having one surface substantially contiguous to the second surface of the substrate; and

a substantially centrally located well formed in the first layer such that the distance between the region and the second layer is reduced at the location of the well.

22. (Cancelled).

23. (Cancelled).

24. (Currently Amended) The device of claim 15 wherein the second surface of the ~~epitaxial~~ high resistivity layer ~~of relatively high resistivity material~~ receives a lesser amount of diffused material to form ~~a~~ said ~~well that reduces the area of the relatively high resistivity material in the second surface of the epitaxial layer of relatively high resistivity material~~ to reduce ~~a~~ said resulting electric field.